



ELSEVIER

Chemical Geology 160 (1999) 447–448

**CHEMICAL  
GEOLOGY**

INCLUDING

ISOTOPIC GEOSCIENCE

www.elsevier.com/locate/chemgeo

**Contents Volume 160, 1999****Vol. 160, Nos. 1–2***Research Papers*

The Blue Hills Intrusive Complex in Southern Namibia—relationships between carbonatites and monticellite picrites S. Kurszlaukis, L. Franz and G.P. Brey	1
Trace metals and organic geochemistry of the Machiques Member (Aptian-Albian) and La Luna Formation (Cenomanian-Campanian), Venezuela M. Alberdi-Genolet and R. Tocco	19
Initial and long-term dissolution rates of aluminosilicate glasses enriched with Ti, Zr and Nd G. Leturcq, G. Berger, T. Advocat and E. Vernaz	39
Major and trace elements associated with colloids in organic-rich river waters: ultrafiltration of natural and spiked solutions B. Dupré, J. Viers, J.-L. Dandurand, M. Polve, P. Bénédith, P. Vervier and J.-J. Braun	63
A helium, argon, and nitrogen record of the upper continental crust (KTB drill holes, Oberpfalz, Germany): implications for crustal degassing W. Bach, D. Naumann and J. Erzinger	81
Geochemistry of Precambrian mafic magmatic rocks of the Western Himalaya, India: petrogenetic and tectonic implications T. Ahmad, P.K. Mukherjee and J.R. Trivedi	103
Solid speciation and fractionation of rare earth elements in a spodosol profile from northern Sweden as revealed by sequential extraction M. Land, B. Öhlander, J. Ingri and J. Thunberg	121
Rare earth elements and Sr and Nd isotopic compositions of dissolved and suspended loads from small river systems in the Vosges mountains (France), the river Rhine and groundwater A. Tricca, P. Stille, M. Steinmann, B. Kiebel, J. Samuel and J. Eikenberg	139

*Isotope Geoscience Section*

On the occurrence and wider implications of anomalously low $\delta D$ fluids in quartz veins, South Cornwall, England S.A. Gleeson, J.J. Wilkinson, A.J. Boyce, A.E. Fallick and F.M. Stuart	161
--	-----

**Vol. 160, No. 3***Research Papers*

Pb-Pb dating and Pb isotope geochemistry of Neoproterozoic carbonate rocks from the São Francisco basin, Brazil: implications for the mobility of Pb isotopes during tectonism and metamorphism M. Babinski, W.R. Van Schmus and F. Chemale Jr.	175
Age significance of U-Th-Pb zircon data from early Archaean rocks of west Greenland—a reassessment based on combined ion-microprobe and imaging studies M.J. Whitehouse, B.S. Kamber and S. Moorbath	201
Distribution of uranium and thorium series radionuclides in mineral phases of a weathered lateritic transect of a uranium ore body H.R. von Gunten, E. Roessler, R.T. Lawson, P.D. Reid and S.A. Short	225
Quantitative trace element analyses of silicate reference materials and a stainless steel using the proton microprobe M. Kurosawa, J.L. Campbell, W.J. Teesdale, H. Ohyi, Y. Deguchi and S. Murao	241

**Vol. 160, No. 4****Special Issue: Interactions between slab and sub-arc mantle: Dehydration, melting and element transport in subduction zones.**

<i>Editorial</i> . . . . .	251
<i>Research Papers</i>	
Lithium isotopic composition of Central American Volcanic Arc lavas: implications for modification of subarc mantle by slab-derived fluids L.H. Chan, W.P. Leeman and C.-F. You . . . . .	255
Boron isotopic composition of subduction-zone metamorphic rocks S.M. Peacock and R.L. Hervig . . . . .	281
Constraints from high-pressure veins in eclogites on the composition of hydrous fluids in subduction zones H. Becker, K.P. Jochum and R.W. Carlson . . . . .	291
Slab dehydration and basalt petrogenesis in subduction systems involving very young oceanic lithosphere D.L. Harry and N.L. Green . . . . .	309
Reaction between slab-derived melts and peridotite in the mantle wedge: experimental constraints at 3.8 GPa R.P. Rapp, N. Shimizu, M.D. Norman and G.S. Applegate . . . . .	335
The solubility of TiO <sub>2</sub> in olivine: implications for the mantle wedge environment L. Dobrzhinetskaya, K.N. Bozhilov and H.W. Green II . . . . .	357
Radiogenic helium in xenoliths from Simcoe, Washington, USA: implications for metasomatic processes in the mantle wedge above subduction zones A. Dodson and A.D. Brandon . . . . .	371
Isotopic constraints on time scales and mechanisms of slab material transport in the mantle wedge: evidence from the Simcoe mantle xenoliths, Washington, USA A.D. Brandon, H. Becker, R.W. Carlson and S.B. Shirey . . . . .	387
The redox state of subduction zones: insights from arc-peridotites I.J. Parkinson and R.J. Arculus . . . . .	409
Petrology of a mantle-derived rhyolite, Hokkaido, Japan T. Takagi, Y. Orihashi, K. Naito and Y. Watanabe . . . . .	425
<i>Contents Volume 160, 1999</i> . . . . .	447

